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TRANSMITTAL OF APPELLANT'S RESPONSE APPEAL BRIEF (Large Entity)					Docket No. ARC920000023US1	
In Re Application Of: Krueger, et al.						
Application No. 09/848,430	Filing Date May 4, 2001	Examiner Ries, L. A.	Customer No. 48146	Group Art Unit 2176	Confirmation No. 7814	
Invention: AN EFFICIENT STORAGE MECHANISM FOR REPRESENTING TERM OCCURRENCE IN UNSTRUCTURED TEXT DOCUMENTS						
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Transmitted herewith in triplicate is the <i>Appellant's Response</i> Appeal Brief in this application, with respect to the Notice of Appeal filed on <i>Sept. 29, 2005</i>						
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Appellants' Response to Examiner's Answer
S/N: 09/848,430

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of

Kruelen, et al.

Serial No.: 09/848,430

Group Art Unit: 2176

Filed: May 4, 2001

Examiner: Ries, Laurie Anne

**For: AN EFFICIENT STORAGE MECHANISM FOR REPRESENTING TERM
OCCURRENCE IN UNSTRUCTURED TEXT DOCUMENTS**

Commissioner of Patents
Alexandria, VA 22313-1450

APPELLANTS' RESPONSE TO EXAMINER'S ANSWER

Sir:

Appellants respectfully respond to the arguments in the Examiner's Answer mailed on February 27, 2006, as focused particularly on section (10) Response to Argument, beginning on page 11 of the Answer.

In general, Appellants submit that the rejection, as revised to recognize that claims 3, 4, 7, 8, 11, and 12 are now allowable if rewritten in independent format, clearly demonstrates the insidious nature of improper hindsight. Appellants submit that the rejection merely uses the techniques taught in the disclosure of the present invention to adapt the technique taught in primary reference US Patent 5,895,470 to Pirolli et al., to evaluate a website so that it would be executed in accordance with the concepts of the present invention.

Appellants submit that such adaptation merely uses the claimed invention as a roadmap, given the distinct nature of the techniques taught in Pirolli and the very different nature of a website from that of a document corpus containing an ordered plurality of

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documents. Appellants also submit that such adaptations would inherently change the underlying principles of operation described in Pirolli, which change of principle of operation would be improper in an obviousness evaluation.

1. A website is not normally considered from the perspective of a document corpus

Appellants first submit that, to even consider Pirolli as the primary reference, one having ordinary skill in the art would have to view evaluation of a website of linked documents in an entirely abnormal perspective as being a precisely-ordered arrangement of documents. Appellants submit that even Pirolli, at lines 27-28 of column 6 (“Thus, the walker produces a graph representation of the hyperlink structure of the Web locality”), does not consider a website to be precisely-ordered.

Thus, even according to the primary reference itself, the environment of the primary reference would first have to be converted into the perspective of being a precisely-ordered listing of documents in order to satisfy the plain meaning of the claim language of the independent claims. Appellants submit that the Examiner's argument that there is a home page that can serve as a table of contents does not in any manner convert the perspective of the website into a precisely-ordered listing of documents, when the primary reference itself clearly describes its method as based upon the perspective of a graphical hyperlink structure.

The most that can reasonably be said is that the Examiner's Answer points out that one could change the perspective of a website to become a precisely-ordered listing of documents, even though it typically is viewed by one having ordinary skill in the art from the perspective of a graphical hyperlink structure.

In contrast, the present invention is directed specifically to a document corpus that presumes initially that the documents are precisely-ordered. Thus, the present invention does not include the initial step of imposing an arbitrary ordering of the documents typically viewed as interconnected in a graphically represented hyperlink structure, thereby initially converting the website into a document corpus.

Therefore, Appellants submit that the imposing of an order based upon an arbitrary standard, such as considering the documents to be arranged in accordance with a table of

contents of a homepage does not convert a website into a document corpus of precisely-ordered documents, absent improper hindsight.

2. There would be no reason to modify the standard perspective of a website, as demonstrated by the primary reference, into the perspective of a document corpus, since the primary reference addresses the evaluation of similarities of two documents on the website

Appellants secondly submit that one having ordinary skill in the art would have no reasonable motivation to modify the technique taught in primary reference Pirolli into a technique based upon viewing a website as a document corpus. As clearly shown in Figure 11, the technique in Pirolli is directed to finding a similarity between the different documents on the website, exemplarily demonstrated as a matrix in which similarities of two documents are listed. Thus, it is clear that the analysis technique in Pirolli is based on a document-by-document analysis. There is clearly no need, in a technique in which one document of a website is compared with a second document on the website, to view the website as an entity to be represented as an entire database represented by a single vector, as if it were an ordered set of documents.

In contrast, the present invention recognizes that, given a document corpus of ordered documents, an input query can be more efficiently exercised if all these ordered documents were represented as a single entity in format of a single data vector. The present inventors have adopted an entirely different perspective of a database, by considering the benefit of viewing the database in its entirety.

Therefore, given the entirely different purpose of the primary reference (e.g., to determine similarity between two documents of a website, the similarity being represented by a matrix having documents as reference nodes of the matrix coordinate axes, as shown in Figure 11 of Pirolli) from the purpose of the present invention (e.g., to represent information content of a plurality of documents in a single-vector format, possibly then available for matching with an input query), Appellants submit that one of ordinary skill in the art would not have been motivated to adopt an unconventional perspective that a website could be viewed as a document corpus, rather than a plurality of linked documents

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represented graphically as having no specific ordering. Moreover, the task of comparing similarity between two documents does not benefit from this different perspective.

It is the present invention that teaches the concept of a single data vector for information of a database. The Examiner's evaluation is clearly influenced by improper hindsight.

3. Converting the technique of determining similarity of two documents within a website into a technique based upon representing data in a document corpus as a single vector of information would improperly change the principle of operation of the primary reference.

As mentioned above, the technique in Pirolli ultimately produces a matrix of normalized similarity between any two documents in the website, as shown in Figure 11. Clearly, representing data of the website documents as buried in a single vector of information will only provide an undue burden on the technique in Pirolli that inherently depends upon evaluating two separate documents in isolation of other documents, particularly since the comparison further includes derivation of data that is outside the textual information content of the documents.

That is, as clearly described in lines 63-64 of column 4 ("The raw data is comprised of topology information, page meta-information, page frequency path information and text similarity information."), the raw data used in Pirolli includes more than the text data on the web documents. Appellants submit that it would be very difficult for one of ordinary skill in the art even to convert this raw data of Pirolli into a format that is conducive to the representation of the present invention involving a single vector for the entirety of the website, since more than text data is involved.

In contrast, the present invention is directed toward a document corpus having exemplarily only text data, which information is not interspersed with linkage information, meta-information, and usage data, such as present in Pirolli, that would have to be identified as a specific types of data in the single vector representation.

There is certainly no such suggestion in Pirolli for such representation and Appellants submit that one having ordinary skill in the art would not be motivated to

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attempt to represent raw data of Pirolli in the single vector of the present invention because of the burden that would be imposed in attempting to use this single-vector format in the evaluation method of Pirolli wherein two documents are to be compared for similarity.

The closest that the technique of Pirolli comes to the purpose of the present invention would be the task of determining similarity of text, as described in lines 31-48 of column 7. The Examiner has not even attempted to define or discuss this method or to accordingly modify it to be executed in the manner of using a single vector of text data for the entire website. Appellants submit that, unless the Board wishes to explain this missing evaluation, the rejection currently of record is deficient for this reason alone.

4. The combination of primary reference Pirolli and secondary reference Call is improper since these two references are non-analogous

The Examiner continues to consider that Pirolli and Call are analogous because each is "... from the same field of endeavor of extracting and analyzing information from electronic documents."

Appellants submit that this characterization demonstrates improper hindsight by attempting to consider references as analogous simply because there is some level of abstraction that can be articulated as providing a similarity. Even the separate USPTO classification of these two references clearly demonstrates that they are not analogous.

Primary reference Pirolli involves determining similarity between documents at a website. In contrast, secondary reference Call involves representation of text data within a single document. Appellants submit that these are two distinct environments having two distinct purposes and clearly, therefore, are non-analogous.

5. Even if Call were to be combined with Pirolli, the result would not satisfy the plain meaning of the independent claims.

The Examiner considers that Call teaches "... developing an uninterrupted array of integers corresponding to an occurrence of terms."

In response, Appellants submit that such an array in Call is relative to a single document, not a single vector representing text data of an entire document corpus, wherein
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the boundaries of the documents are ignored in the data representation. That is, there is no suggestion in Call to "think outside the boundaries of a single document", as the present inventors have done.

Moreover, as explained above, the raw data in Pirolli includes more than the text data of the website documents, thereby additionally indicating that the current evaluation merely picks and chooses from entirely different environments, different purposes, and different techniques because of improper hindsight.

Appellants submit that one of ordinary skill in the art would not find it obvious, absent improper hindsight, to use the listing of integers described for a single document, as expanded to represent an entire database contents containing thousands/millions of individual documents. Moreover, Appellants submit that one would have to go outside of the concepts of secondary reference Call to use it for the raw data of Pirolli that contains data additional to simple text data.

Because neither primary reference Pirolli nor secondary reference Call suggests using a single vector to represent information for an entire data base, even if these two references were to be combined, the result would not satisfy the plain meaning of the language of the independent claims relative to a single vector of data for the information content of an entire document corpus.

As pointed out above, the inventors have taken a change of perspective in order to get outside the mindset of thinking of a document as an isolated entity by considering, instead, that a document corpus can be viewed as a database in its entirety for the purpose of representation of data. None of the prior art of record has any suggestion for this approach to represent data.

6. Relative to the Examiner's argument on page 13 that normalization between two documents would render obvious normalization within a document, Appellants submit that such evaluation is tantamount to suggesting that "normalization" is considered to be a concept in the abstract that no longer can serve as an element in any combination of elements to define an invention distinct from any other "normalization" process, whether

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the normalization involves a completely different method or involves a completely different entity or environment.

Thus, this aspect of the current evaluation becomes an example by the USPTO of attempting non-statutory subject matter in reverse, wherein the term "normalization" is applied as an abstract idea that is no longer available as an element for defining a patentable combination.

Appellants submit that such abstraction of terminology is clearly improper hindsight.

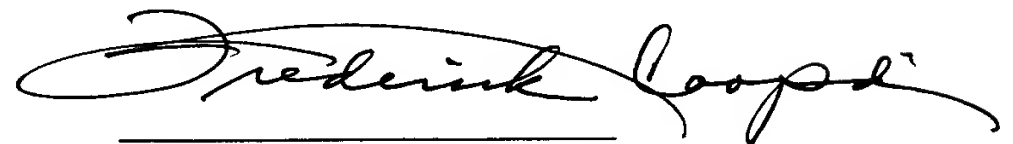
CONCLUSION

In view of the foregoing, Appellants submit that claims 1-25, all the claims presently pending in the application, are clearly enabled and patentably distinct from the prior art of record and in condition for allowance. Thus, the Board is respectfully requested to remove all rejections of claims 1-25.

Please charge any deficiencies and/or credit any overpayments necessary to enter this paper to Assignee's Deposit Account number 09-0441.

Dated: 4/27/06

Respectfully submitted,



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